

**Middle School Initiative**

**PART I  
COVER SHEET**

**CAP 2 SEMESTER 1 WEEK 5**

**COURSE:** Wright Brothers Aerospace Education, Achievement 3

**LESSON TITLE:** Airplane Systems

**LENGTH OF LESSON:** 50 Minutes

**METHOD:** Lecture - Performance

**REFERENCE(S):**

1. *Aerospace Dimensions*, Module 2, Chapter 1, 2000
2. Study Guide, 2000
3. Leader Guide, 2000
4. Resource Guide, 2000

**AUDIO/VISUAL AIDS/HANDOUTS/ACTIVITY MATERIAL(S):** As Needed

**COGNITIVE OBJECTIVE:** To learn the different systems of an aircraft.

**COGNITIVE SAMPLES OF BEHAVIOR:** Upon completion of this chapter, the cadet should be able to:

1. Explain how a reciprocating engine operates.
2. Identify parts of the airplane engine when viewed externally.
3. Describe how a jet engine operates.
4. Identify basic cockpit-mounted powerplant controls.
5. Identify basic flight instruments.

**AFFECTIVE OBJECTIVE:** N/A

**AFFECTIVE SAMPLES OF BEHAVIOR:** N/A

**Middle School Initiative****PART II  
TEACHING PLAN****Introduction**

**ATTENTION:** Today, you will begin your Aerospace Education studies in Module 2. We will start with *Aerospace Dimensions*, Module 2, Chapter 1 - Airplane Systems.

**MOTIVATION:** Controlling an aircraft depends upon many systems and the pilot's knowledge of those systems. This chapter will start you on your journey of understanding the systems of an airplane.

**OVERVIEW:** During this period, your aerospace studies will be Airplane Systems.

**Body**

**NOTE:** The instructor should use the lesson plan in the Leader Guide, Pages 6-7. For today's lesson, the cadets should use the Study Guide, Pages 13-15. A materials list is located in the Resource Guide, Page 46.

**Conclusion**

**SUMMARY:** We have studied the material in *Aerospace Dimensions*, Module 2, Chapter 1.

**REMOTIVATION:** Now you understand the systems that allow an airplane to fly.

**CLOSURE:** In two weeks, we will continue our AE studies with Module 2, Chapter 2 - Airports. **Any questions? See you next week!**

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**PART III  
LESSON REVIEW**

**LESSON OBJECTIVE(S):** Today, we learned how to:

1. Explain how a reciprocating engine operates.
2. Identify parts of the airplane engine when viewed externally.
3. Describe how a jet engine operates.
4. Identify basic cockpit-mounted powerplant controls.
5. Identify basic flight instruments.

**LESSON QUESTIONS:** Contained in *Aerospace Dimensions*, Module 1, Chapter 1.